

CBS

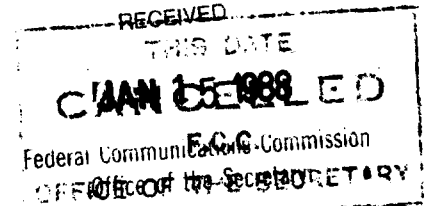
CBS Inc., 1800 M Street, N.W.
Washington, D.C. 20036
(202) 457-4321

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JAN 19 1988

Federal Communications Commission
Office of the Secretary




Re: MM Docket No. 87-268 ✓

Dear Mr. Feaster:

January 19, 1988

Enclosed are an original and 11 copies of the Reply Comments of CBS Inc. in the above proceeding, relating to the Commission's August 20, 1987 Notice of Inquiry on advanced television systems and their impact on the existing television service. Please direct any questions to the undersigned.

Yours truly,



Mark W. Johnson
Associate Washington Counsel

H. Walker Feaster
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

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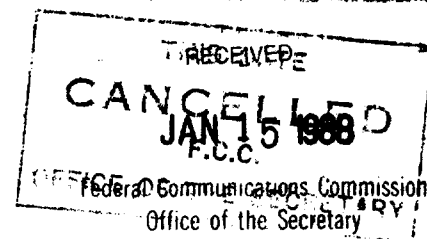
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JAN 19 1988

Federal Communications Commission
Office of the Secretary

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of)
)
Advanced Television Systems)
and Their Impact on the Existing)
Broadcast Service)

MM Docket No. 87-268 ✓

REPLY COMMENTS OF CBS INC.

CBS Inc. ("CBS") hereby submits its Reply Comments in the above proceeding -- the Commission's "wide-ranging inquiry to consider the technical and policy issues surrounding the use of advanced television technologies by television broadcast licensees." (Notice of Inquiry ("Notice") at ¶3.) Although there appears to be virtual consensus among the commentators that implementation of terrestrial HDTV broadcasting would be desirable, some views expressed by some commentators would, if adopted, jeopardize this bedrock goal, and CBS briefly responds below to those views.

In its initial Comments, filed on November 18, 1987, CBS offered its views on the broad array of issues posed in the Notice and responded to the many specific questions in as much detail as is presently possible. In general, CBS stressed that the complexity and

importance of the task of introducing terrestrial high-definition television ("HDTV") broadcasting in this country makes it essential that the Commission act in an orderly but expeditious manner and be guided by certain basic propositions from the outset of this inquiry. Specifically, the Commission should recognize the critical fact that nonbroadcast video distribution media will be introducing HDTV in the United States in the near future. Thus, if Commission actions involving technical standards and spectrum allocations for terrestrial HDTV broadcasting are to be effective, they should be designed and timed to allow the introduction of terrestrial broadcast HDTV of competitive technical quality within five years.

CBS urged that this timetable can be met through the diligent pursuit of a program of objective and subjective testing of proposed terrestrial HDTV transmission systems by the Advanced Television Systems Committee ("ATSC") under the auspices of the FCC's Advisory Committee on Advanced Television Services ("Advisory Committee"), and CBS proposed several criteria for evaluation of candidate systems. Because the amount and type of spectrum required by a particular terrestrial broadcast HDTV system will only be established in the testing process, the Commission should retain all of its spectrum allocation options until the necessary testing provides sufficient information.

Predictably, comments were filed in response to the Notice by representatives of a wide variety of interests -- broadcast stations, broadcast networks, advanced television system proponents, hardware manufacturers, nonbroadcast media (cable, home earth stations, a DBS permittee), a government agency (NTIA), would-be spectrum claimants for non-HDTV services and public interest groups.

CBS will not attempt to reply in detail to the different points of view and emphases that representatives of such varied interests naturally bring to the proceeding. Rather, these Reply Comments are addressed to those commentators that take positions inconsistent with the timely introduction of a high-quality terrestrial HDTV broadcast service.

A. The Commission Should Continue To Focus On The Early Introduction Of Terrestrial Broadcast HDTV.

The National Cable Television Association proposes an open-ended timetable for the selection of a terrestrial broadcast HDTV standard and concludes that "the Commission...should adopt a much wider view of the implications of [advanced television] technologies for all of the interested distribution media, before it establishes new television standards." (NCTA Comments at p. 15.) Similarly, Time Inc. faults the Notice because it "focuses almost entirely on broadcast distribution of HDTV" (Time Inc. Comments at p. 3) and

proposes that the Commission "should give the marketplace time to develop and reach a consensus on the appropriate standard or standards which are necessary to implement HDTV for consumers."

(Time Inc. Comments at p. 6.)

CBS agrees that the ability of cable systems to pass a broadcast HDTV signal without significant degradation should be evaluated, and the ATSC and the Advisory Committee may be expected to take that into account in the course of the testing of proposed terrestrial broadcast transmission systems. However, cable transmission is but one of many important factors to be considered in that testing and evaluation process.* The need to implement terrestrial broadcast HDTV in four-to-five years is the overriding constraint on the standards and allocations decisions that ultimately will have to be made, and the Commission should not allow itself to be distracted

* One commentator takes this proceeding as an occasion to object to the merits of the HDTV studio standard for program production and international exchange that has recently been approved by the ATSC, is under final consideration by the SMPTE, and is also under consideration by the CCIR. (Comments of William F. Schreiber at pp. 3-3, 3-4.) While CBS stated in its initial Comments that any terrestrial broadcast HDTV standard should be able to use that studio standard as a program source, that criterion should not pose a significant hurdle for a prospective system. Beyond this very limited matter, the proposed studio standard is not relevant to the present proceeding.

from its main task of timely terrestrial HDTV broadcast implementation because of the special agenda of nonbroadcast interests.

B. The Advanced Television System Implemented For Terrestrial Broadcasting Should Be Competitive In Technical Quality With Nonbroadcast Media.

At the outset of its initial Comments, CBS drew the distinction between "advanced" television systems ("ATV") in general and "high-definition" television systems ("HDTV"), and it was emphasized throughout those Comments that only an HDTV terrestrial broadcast system that would be competitive with unregulated nonbroadcast media should be adopted.* CBS reemphasizes that position here because some commentators, while not disagreeing on the ultimate desirability of a true HDTV system, suggest that a two-step transition to HDTV is appropriate.

For example, NHK describes its "family of advanced television systems" that includes proposals for NTSC enhancements as a transition to its HDTV MUSE system and suggests that "the Commission

* Moreover, that terrestrial HDTV transmission standard and its underlying technology should provide technical quality headroom, so that further improvements in quality can be accommodated.

may wish to consider authorizing an enhancement of NTSC as an interim measure." (NHK Comments, at p. 11.) Also, NBC describes the GE/NBC 6 MHz system and states that it "embodies an evolutionary approach to offering advanced television signals to viewers." (NBC Comments, at p. 7.)

The level of video and audio improvement that such systems as the NHK enhanced systems and the GE/NBC system might be able to provide has not yet been demonstrated, so their quality relative to true HDTV systems cannot be gauged. However, CBS believes that it would be a mistake for the energies of government and industry to be refocussed on "interim" improvements of indefinite quality and for an indefinite period of time. It would reflect an underestimation of the competitive disadvantage that broadcasters will face when nonbroadcast HDTV is introduced in the near future. Further, it would greatly complicate the problem of assuring that sufficient spectrum is ultimately available for a true HDTV terrestrial broadcasting system. Finally, it would reduce the incentive of system proponents to concentrate the necessary effort on achieving the highest technical quality in the limited time available. Under these circumstances, CBS believes that the express goal of the Commission and its Advisory Committee should be the implementation of a terrestrial broadcast system of the highest technical quality

possible given the four-to-five year time constraint imposed by the unregulated nonbroadcast video marketplace.

In pursuance of this goal, the Commission and the Advisory Committee should make it clear to proponents of particular transmission systems that the technology associated with them should be available by mid-1989 for testing in a realistic operational environment. In the meantime, the Commission and the Advisory Committee should work toward the establishment of minimum objective and subjective video and audio performance specifications that take into account the projected technical quality of nonbroadcast HDTV to be introduced in the U.S and the timing of that introduction. If the Commission shows this kind of resoluteness of purpose about maximizing technical quality, system proponents will concentrate their efforts in response, and the chances of the timely development of a competitive terrestrial HDTV broadcast system will be increased.

C. The Commission Should Retain All Of Its Spectrum Allocation Options Despite The Repeated Claims Of Some Prospective Spectrum Claimants.

CBS emphasized in its initial Comments that spectrum allocation decisions should only be made after testing of the various terrestrial HDTV transmission systems, because the amount and type of new spectrum needed for the operation of a particular

transmission system depend on the technical characteristics of that system. Although this relationship has gone unchallenged in the comments filed in the inquiry, certain interests have reasserted their familiar arguments for prior claims on spectrum potentially usable for terrestrial broadcast HDTV transmission. For example, the Land Mobile Communications Council ("LMCC") asserts that the Commission should decide at this point that no "advanced" television system should be considered that requires more than 6 MHz of spectrum. (LMCC Comments at pp. 9ff.) Also, The Satellite Broadcasting and Communications Association of America ("SBCA") cites several "problems associated with the terrestrial usage of the 12 GHz band for HDTV transmission" and jumps to the conclusion that "the 12 GHz band is technically infeasible and economically impractical for use in terrestrial broadcasting." (SBCA Comments at p. 9.)

It is not surprising that land mobile, DBS and other interests* would ask the Commission to limit its HDTV allocations possibilities

* Other commentors take the opportunity to advance new proposed spectrum uses. On the one hand, National Public Radio asks the Commission to allocate spectrum for "digital audio and other advanced audio technologies." On the other hand, Radio Telecom and Technology, Inc. asks the Commission "to broaden its perspective" to include consideration of "two-way interactive television." While these, and other, proposals may well merit further perusal, the Commission should consider such longer-range technological proposals only after it has provided for terrestrial HDTV broadcasting.

to spectrum not presently assigned to (or coveted by) those interests. However, the overriding importance of the issue of HDTV terrestrial broadcast implementation requires the Commission not to make allocations decisions at this preliminary stage that could prejudice the outcome of the proceeding. Obviously, for the Commission to limit its consideration at the behest of LMCC to advanced television proposals using only 6 MHz would constitute such a prejudgment. Likewise, a commitment at this time by the Commission not to consider 12 GHz would prejudice the technical suitability of that spectrum before planned testing has been undertaken. It would also limit the Commission's policy option discussed in CBS's initial Comments of simulcasting NTSC and HDTV during the transition period to an all-HDTV system. CBS has not itself prejudged these issues. Rather, CBS's position is simply that the matter of HDTV implementation by free over-the-air broadcasters is of overriding importance as a matter of communications policy and that the possible outcomes should not be limited by piecemeal decision-making that loses sight of the main task.

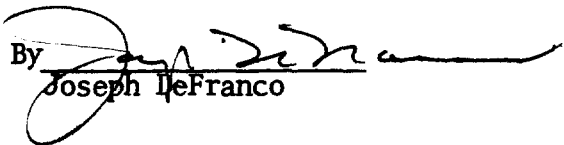
CONCLUSION

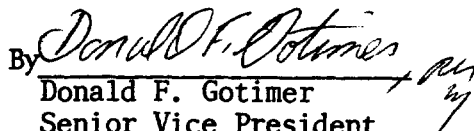
The numerous comments filed in response to the Notice reflect the widespread interest in this proceeding and its importance to the

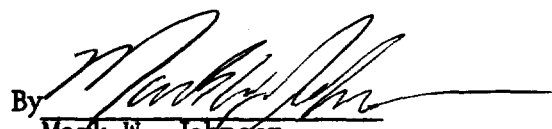
future of our free over-the-air locally-based broadcast system. While the commentators represent a variety of points of view, there is general support for the proposition that the time is right for the development and implementation of a new, technically superior terrestrial broadcast transmission system in this country. CBS urges the Commission to act expeditiously toward that goal.

Respectfully submitted,

CBS Inc.

By 
Joseph DeFranco

By 
Donald F. Gotimer
Senior Vice President
and Managing Director
CBS Operations and Engineering
CBS Broadcast Group

By 
Mark W. Johnson

Its Attorneys

1800 M Street, N.W.
Washington, D.C. 20036

January 19, 1988

Revised Distribution

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